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EXAMINER

BOKHARI, SYED M

ART UNIT

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2473

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/541,221	<b>Applicant(s)</b> WATABE ET AL.	
	<b>Examiner</b> SYED BOKHARI	<b>Art Unit</b> 2473	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,11 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 11 and 14-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendment filed on December 10<sup>th</sup>, 2009 has been entered. Claims 1-2, 11 and 14 have been amended. Claims 1-4, 6, 11 and 14-16 are still pending in the application.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1 and 6 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 1 is rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claim recites a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled "Clarification of 'Processes' under 35 U.S.C. 101". The instant claim 1 neither transforms underlying subject matter nor tie to another statutory category that accomplishes the claimed method steps or acts, and therefore does not qualify as a statutory process.

Claim 6 is also rejected as the claimed invention is directed to non-statutory subject matter as described above.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term “effected by the moving” is vague and indefinite and fails to point out distinctly claim the subject matter.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-4, 6, 11 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tahara et al. (US 6,671,323 B1) in view of Sakazawa et al. (US 6,075,900) and further in view of Yoneyama (US 2202/0054636 A1).

Tahara et al. disclose an encoding system for encoding input video data and a decoding system for decoding encoded streams with the following features: regarding claim 1, a code translation method comprising the step of receiving an input code stored in a hierarchical data structure, the input code including a parameter related to the amount of data encoded in the input code (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see "data structure of an MPEG encoded stream" recited in column 11 lines 51-54, column 11 lines 60-62 and column 14 lines 37-39), user data at a first level of the hierarchical data structure and main data at a second level of the hierarchical data structure (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see "the function is

Art Unit: 2473

used to define extension data and user data for the GOP layer of the MPEG encoded bit stream” recited in column 12 lines 54-63), generating an output code stored in the hierarchical data structure by modifying the input code (Fig. 31, a block diagram showing the configuration of an MPEG decoder, see “the video data output from the multiplexing circuit 417 has exactly the same ancillary data” recited in column 24 lines 9-14), wherein the main data included in the output code is identical to the main data included in the input code (Fig. 31, a block diagram showing the configuration of an MPEG decoder, see “will not cause the ancillary data added to the input video data to be lost” recited in column 24 lines 15-20); regarding claim 2, wherein the hierarchical data structure conforms with the ISO 13818 standard (Fig. 1, a block diagram showing the configuration of a system that comprises a conventional MPEG encoder and MPEG decoder, see “the MPEG technology is standardized as ISO/IEC 13818” recited in column 1 lines 14-18) and the parameter related to the amount of data encoded the input code is one of a bit rate value, a VBV (Video Buffering Verifier) buffer size value, and a VBV delay value; and the main data comprises compressed video data (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see “wherein the extension\_and\_user\_data(1) function is used to describe only the data elements defined by user\_data including VBV delay and VBV buffer)” recited in column 18 lines 25-45); regarding claim 3, wherein the first level of the hierarchical data structure is the Group of Pictures (GOP) layer; and the third level of the hierarchical data structure is the picture layer (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see “wherein discloses in the different

Art Unit: 2473

levels corresponding to the GOP layers and the picture layers” recited in column 5 lines 29-30, column 12 lines 55-60 and column 13 lines 1-7); regarding claim 4, wherein the first level of the hierarchical data structure is the picture layer; and the third level of the hierarchical data structure is the Group of Pictures (GOP) layer. (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see “wherein discloses in the different levels corresponding to the GOP layers and the picture layers” recited in column 5 lines 29-30, column 12 lines 55-60 and column 13 lines 1-7) and regarding claim 6, further comprising the step of generating additional information for distinguishing the user data included in the input code from the other main data, wherein generation of the output code is advanced according to the additional information (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see “the extension\_and\_user\_data(0) function is used to define extension data and user data for the sequence layer of an MPEG bit stream corresponds to generating additional information for distinguishing the user data included in the input code from the other main data” recited in column 12 lines 31-33); regarding claim 11, a code translation device comprising, a data analyzing section adapted to identify in an input code stored in a hierarchical data structure a parameter related to the amount of data encoded in the input code, user data and main data at a second level of the hierarchical data structure (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see “wherein discloses in the different levels corresponding to the GOP layers and the picture layers” recited in column 7 lines 36-43), multiplexing section which produces an output code in which the

Art Unit: 2473

input code is modified (Fig. 31, a block diagram showing the configuration of an MPEG decoder, see “the video data output from the multiplexing circuit 417 has exactly the same ancillary data” recited in column 24 lines 9-14), and including in the output code, the main data included in the input code (Fig. 31, a block diagram showing the configuration of an MPEG decoder, see “will not cause the ancillary data added to the input video data to be lost” recited in column 24 lines 15-20); regarding claim 14, wherein the hierarchical data structure conforms with the ISO 13818 standard (Fig. 1, a block diagram showing the configuration of a system that comprises a conventional MPEG encoder and MPE decoder, see “the MPEG technology is standardized as ISO/IEC 13818” recited in column 1 lines 14-18), the parameter related to the amount of data encoded by the input code is one of a bit rate value, a VBV (Video Buffering Verifier) buffer size value, and a VBV delay value; and the main data comprises compressed video data (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see “wherein the extension\_and\_user\_data(1) function is used to describe only the data elements defined by user\_data including VBV delay and VBV buffer)” recited in column 18 lines 25-45); regarding claim 15, wherein the first level of the hierarchical data structure is the Group of Pictures (GOP) layer; and the third level of the hierarchical data structure is the picture layer (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see “wherein discloses in the different levels corresponding to the GOP layers and the picture layers” recited in column 5 lines 29-30, column 12 lines 55-60 and column 13 lines 1-7) and regarding claim 16, wherein the first level of the hierarchical data



Art Unit: 2473

structure is the picture layer; and the third level of the hierarchical data structure is the Group of Pictures (GOP) layer. (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see “wherein discloses in the different levels corresponding to the GOP layers and the picture layers” recited in column 5 lines 29-30, column 12 lines 55-60 and column 13 lines 1-7).

Tahara et al. do not disclose the following features: regarding claim 1, moving the user data to a third level of the hierarchical data structure and changing the parameters to reflect the change in code size effected by the moving; regarding claim 11, by moving the user data to a third level of the hierarchical data structure.

Sakazawa et al. disclose a method and apparatus for coded moving picture data hierarchy formation with the following features: regarding claim 1, moving the user data to a third level of the hierarchical data structure (Fig. 10, a block diagram showing the third embodiment of the invention, see "low frequency components of P picture data are assigned to a third hierarchy" recited in column 2 lines 10-34); regarding claim 11, by moving the user data to a third level of the hierarchical data structure (Fig. 10, a block diagram showing the third embodiment of the invention, see "low frequency components of P picture data are assigned to a third hierarchy" recited in column 2 lines 10-34).

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the system of Tahara et al. by using the features, as taught by Sakazawa et al., in order to provide moving the user data to a third level of the hierarchical data structure. The motivation of using these functions is to enhance the system in a cost effective manner.

Tahara et al. and Sakazawa et al. do not disclose the following features: regarding claim 1, changing the parameters to reflect the change in code size effected by the moving; regarding claim 11, changing the parameter to reflect the change in code size effected by moving the user data.

Yoneyama discloses a communications system for high efficiently coding an image signal with the following features: regarding claim 1, changing the parameters to reflect the change in code size effected by the moving (Fig. 1, a block diagram for showing an image signal coding apparatus according to a first preferred embodiment of the invention, see "the parameter setting means 102 changes the coding conditions

Art Unit: 2473

corresponding to the results output by the allocation means 104 and the updated coding conditions creating means 105" recited in paragraph 0020 lines 1-11 and paragraph 0050 lines 1-7); regarding claim 11, changing the parameter to reflect the change in code size effected by moving the user data (Fig. 1, a block diagram for showing an image signal coding apparatus according to a first preferred embodiment of the invention, see "the parameter setting means 102 changes the coding conditions corresponding to the results output by the allocation means 104 and the updated coding conditions creating means 105" recited in paragraph 0020 lines 1-11 and paragraph 0050 lines 1-7).

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the system of Tahara et al. with Sakazawa et al. by using the features, as taught by Yoneyama, in order to provide changing the parameters to reflect the change in code size effected by the moving. The motivation of using these functions is to enhance the system in a cost effective manner.

### ***Response to Arguments***

10. Applicant's arguments filed December 10<sup>th</sup>, 2009 have been fully considered but they are not persuasive. Applicant states in the remarks "As acknowledged at page 7, line 20 to page 8, line 2 of the Office Action, Tahara and Sakazawa do not render obvious "changing the parameter," as recited in claims 1 and 11. Seeking to bridge this gap between the claims and the cited art, the Office Action asserts Yoneyama discloses

Art Unit: 2473

"changing the parameter" as recited in the claims. Office Action, page 8. However, Yoneyama fails to bridge the acknowledged gap between claims 1 and 11 and the cited art, as it fails to disclose or render obvious use of a parameter according to the claimed subject matter". Examiner respectfully disagrees. Yoneyama teaches the claimed limitations. Prior art teaches that the parameter setting means 102 changes the coding conditions corresponding to the results output by the allocation means 104 and the updated coding conditions creating means 105, so that based on the changed coding conditions, the coding means 101 re-codes the input image signal. Data distribution in the video edit units (VEUs) is determined by control of the coding means 101. The allocation means, based on the analysis result, captures as one scene an aggregate of such pictures that have roughly the same coding difficulty and prescribes it as a video edit unit, so that the input image signal is subdivided into a plurality of video edit units to calculate an average target coding rate for each of these video edit units. The position information of the video edit units and the average target coding rate calculated by the allocation means are converted into coding conditions for re-coding by the updated coding conditions creating means. Corresponding to a result output from the updated coding conditions creating means, the parameter setting means changes the coding conditions, so that under thus changed new coding conditions, the coding means re-code the input image signal. Applicant states in the remarks "Yoneyama, paragraphs [0020] and [0050] and shown in Yoneyama, FIG. 1, discloses "changing the parameter," as recited in claims 1 and 11. However, the parameter set output by parameter setting means 102 is neither included in an input code stored in a hierarchical data structure or

Art Unit: 2473

in an output code stored in the hierarchical data structure. Accordingly, Yoneyama does not disclose or render obvious changing a parameter included in an input code stored in a hierarchical data structure in order to produce or generate the parameter included in the hierarchical data structure storing the output code. Further, Yoneyama does not disclose or render obvious "changing the parameter to reflect [a] change in code size effected by [a] moving" of user data between hierarchical levels". Examiner respectfully disagrees. Prior art teaches the claimed limitations. Yoneyama teaches that the image signal coding apparatus includes coded-data storage means for extracting and storing coded information usable on re-coding based on the coded result by the coding means. The coding means has such a configuration as to re-code by utilizing the coded information stored in the coded-data storage means, in re-coding. In this aspect, the encode information creating means, the allocation means, and the updated coding conditions creating means assist optimal coding processing when the coding means re-codes the input image signal. In this case, the re-coding by the coding means cause a load on the circuit operations. To guard against this, the inventor has discussed how to re-utilize original coded information in re-coding. Further, it includes a buffer control switching means provided to the coding means. This buffer control switching means inhibits forced control for the purpose of avoiding overflow/underflow for a virtual buffer at the coding means if initial coding is conducted on the input image signal.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SYED BOKHARI whose telephone number is (571)270-3115. The examiner can normally be reached on Monday through Friday 8:00-17:00 Hrs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang B. Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Syed Bokhari/  
Examiner, Art Unit 2473  
2/14/2010

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Application/Control Number: 10/541,221  
Art Unit: 2473

Page 14